

REMARKS

The specification has been amended to make even clearer that certain portions of the detailed description describe embodiments of the present invention. Descriptions of certain elements in FIG. 1A and FIG. 1B have been rephrased for the sake of convenience in subsequent descriptions. Claims 1-22 are pending in this application. Many of the claims have been amended simply to correct minor grammatical errors, and therefore for reasons unrelated to compliance with any requirement of 35 USC.

Claims 1-22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over instant application's disclosed prior art (specifically Fig. 1B) in view of *Tanaka* (US 6,498,822). It is submitted that these claims are patentably distinguishable over the cited references for at least the following reasons.

Regarding claim 1, it is noted that the Examiner appears to have taken a position that Fig. 1B together with the text at page 4, lines 15-24 constitute an admission that it is known in the prior art that the parameters of the transmitter I/Q imbalance matrix can be estimated by transmitting two signals.

However, the applicant respectfully denies that this is the case. The text at page 3, lines 17-21 (following the heading "DETAILED DESCRIPTION OF THE INVENTION") clearly states that what follows (including the Examiner-referenced text at page 4, lines 15-24) is a description of an embodiment of the invention. Fig. 1B, while admitted prior art, is a diagram that merely shows I/Q imbalance at the receiver. In this regard, the 2X2 matrix equation cannot be solved since no clue is given as to the values of the four elements residing in the matrix. Moreover, Figure 1B nowhere shows or suggests the statement of the invention at page 4, lines 15-24, that the parameters of the transmitter I/Q imbalance matrix can be estimated by transmitting two signals. That is, the transmitting and receiving of two signals for deriving the I/Q imbalance parameter of the receiver is not illustrated in this figure. It is therefore believed that claim 1 clearly is patentably distinguishable over the applicant's admitted prior art.

The Examiner points out that the instant application's disclosed prior art is an OFDM system. However, regardless of whether the system is an OFDM system or not,

the first and second signals which are recited in claim 1 are not suggested or taught in the prior art Fig. 1B of the instant application alone, or in view of *Tanaka*. For example, the applicant's disclosed prior art and *Tanaka* do not teach or even suggest the claim limitations of transmitting and receiving modulated and then demodulated signals which are symmetrical in the frequency domain, for deriving the I/Q imbalance. Since neither prior art Fig 1B nor *Tanaka*, whether taken alone or in combination, teach or suggest the limitation recited in claim 1, the applicant believes that the rejection of claim 1 should be withdrawn and the claim found allowable.

Independent claims 8, 12 and 16 share limitations similar to those of claim 1 that are discussed above, and therefore are believed also to be clearly patentable for reasons similar to those advance above as to the patentability of claim 1. Claims 2-7, 9-11, 13-15 and 17-22 which are by virtue of depending on claims 1, 8, 12 and 16 respectively, should be allowable if their respective independent claims 1, 8, 12 and 16 are allowable.

Based on the above, it is submitted that the application is in the condition of allowance and such a Notice, with allowed claims 1-22, respectfully is solicited.


Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

No fee is believed due. Should any fee be required, however, the Commissioner is hereby authorized to charge the fee to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,

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Date

SMR:ac


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